



Groupe Vétérinaire MONVET Inc.

ALLERGIES



ALLERGIES

About 15% of dogs suffer from allergies. This common problem inspired us to create a guide to help you understand what an allergy is: the different types, the symptoms associated with it, and how to diagnose and treat it. By knowing more about the condition your pet is living with, you will be better equipped to help him feel better.

What is an allergy?

It is an individual's immune system's abnormal reaction to a substance (allergen) normally present in the environment or in food. Just like humans, dogs are not born with allergies. They become allergic to an allergen after having been repeatedly exposed to it. Moreover, once they're allergic to something, they stay allergic to it for the rest of their lives. Their symptoms can even get worse over time. Fortunately, we can help control them.

The symptoms

Allergies cause red itchy skin. There may also be hair loss and lesions such as dandruff, crusts, scabs and pimples. These lesions are often caused by bacterial, fungal or parasitic infections. Ear infections are also common.



Itching scale

Here is a scale, graduated from zero to ten, that can help you evaluate the severity of your dog's itching.

| | |
|------|---|
| 0 | Normal dog. He rarely scratches/chews at himself. |
| 1-2 | Very little itching. He only occasionally scratches/chews at himself. Not much more often than before the skin problem first appeared. |
| 3-4 | A little bit of itching. He scratches/chews at himself a little more often. When he sleeps, eats, plays, exercises or focuses on something, he does not scratch/chew at himself. |
| 5-6 | The itching is moderately severe. He scratches/chews at himself regularly. At night, yes, but not during the day when he's eating, playing, exercising or focusing on something. |
| 7-8 | The itching is intense. He scratches/chews at himself for long periods of time. At night and when eating, playing and exercising. Even when someone tries to get his attention. |
| 9-10 | The itching is intense and almost constant. Nothing can distract him. The only way to make him stop scratching/chewing at himself is to physically restrain him. |

ALLERGIES

Types of allergies

Five types of allergies cause skin problems:

- flea bite
- contact
- atopy
- seasonal
- food

Usually, dogs suffer from more than one type of allergy.

Flea bite allergy

The lesions and itching caused by a flea bite allergy are present mostly on the back, near the tail. Just one flea is enough to trigger a reaction in a sensitized animal.



Contact allergy

Lesions associated with a contact allergy appear on the area of the skin that comes in contact with the allergen. For example, the skin on a dog's abdomen, back and paws can react to a perfume applied on his dog bed.



Atopy

Atopy is the ability of genetically predisposed individuals to develop an allergy to allergens in their environment. For example, dust mites (most often), mold, dander or dust.

About 7 out of 10 allergic dogs suffer from atopy. Affected animals develop this type of allergy because their faulty skin allows allergens to come in and their defective immune system produces inflammatory and pruritic molecules.

The itching is intense and mostly found on the:

- face, legs and ears;
- armpits, groin, stomach, thorax, neck, thighs and flanks;
- tail and around the anus.

Symptoms usually appear before the age of 3 years old and are present year round.



ALLERGIES

Seasonal allergies

A seasonal allergy is atopy manifesting itself only from spring to fall, when the dog is exposed to allergens outside (eg. grass, pollen, etc.). Freezing temperatures inactivate them.



Food allergies

Some dogs with food allergies have digestive symptoms in addition to their skin symptoms: increased bowel movements with or without blood and mucus, diarrhea, gas, stomach rumblings, tenesmus (straining to defecate), or vomiting.

Food allergies or intolerance?

These two terms are often mixed up when dogs have digestive trouble after eating. It is important to distinguish food allergies from food intolerance, because the two conditions are very different.

With food allergies, it is the dog's immune system that develops sensitivity to one or more ingredients in the food, after having been exposed to it before. Even a tiny amount of allergens is enough to trigger an adverse reaction.

With food intolerance, the adverse reaction happens at the very first exposure, by either one of these mechanisms:

- A metabolic problem. For example, a defective lactase enzyme causes an inability to digest lactose in milk.
- An intoxication. For example, with chocolate.
- Food poisoning. For example, with rotten meat.

Who develops food allergies?

Approximately 3 allergic dogs out of 10 suffer from food allergies. Symptoms appear before the age of one year in about a third of dogs. The most commonly affected breeds are Cocker and Springer Spaniels, Labradors, Miniature Schnauzers, Collies, West Highland White Terriers, Poodles, Golden Retrievers, Shar Peis, Dalmatians, German Shepherds and Boxers.



ALLERGIES

Food allergens

The allergens implicated are almost always animal or plant proteins. The foods known to cause allergies most often are as follows, in decreasing order of frequency:

- Beef
- Dairy products
- Chicken
- Wheat
- Chicken eggs
- Corn
- Soybeans



The eviction diet trial

An eviction diet trial consists of feeding the dog hypoallergenic food for about 2 to 3 months. The goal is to reduce or eliminate any potential food allergens from his diet and see if the symptoms go away or not. In about 90% of dogs, skin symptoms resolve after 8 weeks.

This test is the only reliable method for diagnosing food allergies. Either with a hydrolyzed protein or a novel protein commercial food or with home-cooked meals. Ideally, this is done during winter to avoid seasonal allergens interfering with the results.

It is imperative to eliminate all extras from the dog's diet for the duration of the test. That means no non-hypoallergenic treats, edible toys (eg. chewable bones and strips, pig ears), table scraps, food supplements, flavored toothpaste and medications, etc.

The diagnosis

Diagnosing an allergy is a challenge because many different things can cause itching and similar lesions. Figuring out what type of allergy a dog suffers from adds another element to the puzzle. Since there is no simple or quick test available, we must proceed systematically.

Here are the steps to follow:

- 1- Identify and treat bacterial, fungal and parasitic infections.
- 2- Rule out internal diseases with blood and urine tests.
- 3- Confirm or exclude food allergies with an eviction diet trial.
- 4- Identify environmental allergens with serological or intradermal tests.



ALLERGIES

Hydrolyzed protein diets

The term *hydrolyzed protein* means that proteins are cut into small pieces, too small for the immune system to recognize and react to. We recommend using this type of food to do the test. Additionally, these diets are complete and balanced, so they can be used for maintenance afterwards.



Novel protein diets

Novel protein diets usually contain only one protein and one source of carbohydrates (sugar). By giving the dog a limited number of ingredients to which he has never been exposed, the risk of him reacting to them decreases.

This type of food is not ideal to do the test. The immune system can start to react to its proteins at any time. Also, if the dog has been exposed to the foods' ingredients before, he may already be sensitized to them. Hydrolyzed protein diets are therefore more appropriate for the test when the animal has previously eaten the ingredients present in the novel protein diet or when his food history is not known precisely.



Home-cooked diets

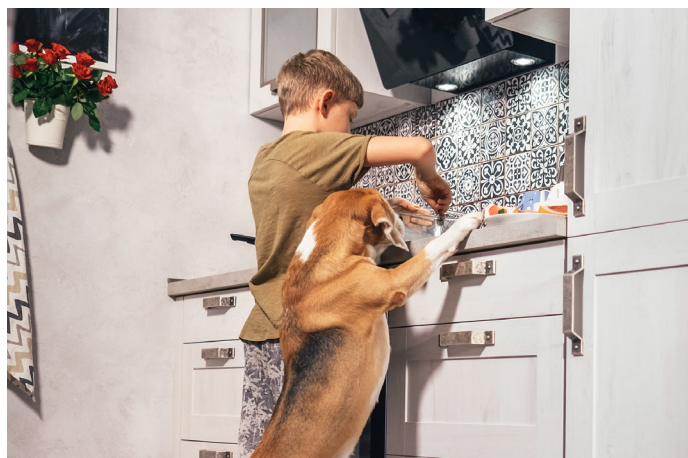
From a diagnostic point of view, home-cooked hypoallergenic diets are ideal because they contain a minimum of ingredients, all of which are precisely known.

However, they are often impractical:

- Many owners don't have the time or the will to prepare their dog's meals.
- The ingredients required can be expensive and hard to find.
- It is often difficult to follow the prescribed recipe faithfully and for months on end.
- Cross-contamination is frequent. For example, beef cut on a cutting board can contaminate the hypoallergenic food if it is prepared on the same board without it having been cleaned properly.

Thus, in order for the test result to be reliable, one must follow the recipe to the letter and make sure that no potential allergens contaminate the dog's food.

Since these diets are neither complete nor balanced, they should not be used longer than necessary.



ALLERGIES

Treats

We have tasty hypoallergenic treats your dog can eat during the test to complete his meals. They do not interfere with the results.



Veterinary supervision

It is important to be accompanied by a veterinarian while you are doing the eviction diet trial. First, because it is a long process during which it can become difficult to respect the imposed constraints. Second, because the veterinarian's expertise is essential to determine whether the test is conclusive or not.



Provocation

Provocation consists of reintroducing the previous diet once the test is over and observing whether the symptoms reappear or not. This step is important to confirm or exclude the diagnosis of food allergies. Symptoms can take up to two weeks to come back.

Sequential provocation

After causing the symptoms to return, we can try to identify which food allergens the dog is reacting to. Here is how:

- 1- Switch back to the hypoallergenic food until the itching and the lesions disappear completely.
- 2- Add only one ingredient to the diet and watch out for the symptoms' reappearance for the next 2 weeks.
- 3- Proceed in the same manner with the other ingredients, one at a time.

And then what?

The dog can continue to eat the hypoallergenic food used for the test if his symptoms are under control, and as long as it is complete and balanced. This excludes home-cooked hypoallergenic meals. As for novel protein diets, don't forget that your dog can eventually become allergic to them.



ALLERGIES

Testing for atopy

Two tests can identify the environmental allergens to which a dog reacts: serological and intradermal tests.

Serological tests

These tests consist of measuring the amount of antibodies against known allergens there are in a dog's blood. When this amount is too high, it is concluded that the dog's immune system reacts to these allergens.



Intradermal tests

These tests are similar to those done in humans. They consist of injecting different known allergens into the dog's skin and observing if redness appears. If so, this indicates that he is reacting to these allergens.



The limits of atopy tests

Like all tests, atopy tests are not foolproof. Here are their limitations:

- They can turn out positive, even in patients who are not allergic.
- The dog may react to allergens that are not on the list of those checked. The test then comes out falsely negative.
- They do not distinguish itching caused by atopy from itching caused by something else.
- They do not replace a complete dermatological investigation.

Why test for atopy?

These tests are not used to diagnose atopy, but rather to decide which allergens to include in desensitization preparations.



Desensitization

In an ideal world, we would identify all the allergens a dog reacts to and eliminate them from his environment. Because in real life this is not possible to do with most allergens (eg dust mites, dust, pollen), the next best thing is to desensitize the pet's immune system to them.

ALLERGIES

Desensitization, also called immunotherapy, involves injecting the animal with increasing concentrations of the environmental allergens to which he reacts. The goal is to get his immune system to "tolerate" and stop reacting to them. In 60-80% of dogs, symptoms improve within 6-12 months.

The treatment

Medications

Medications used to treat allergies relieve itching in one of these ways.

Antihistamines

Antihistamines prevent histamine, one of the molecules that cause itching and redness, from being released by the immune system's cells during an allergic reaction. When used alone, they work best if the symptoms are light.

Anti-inflammatory drugs

The most commonly used anti-inflammatory drug is cortisone. It prevents inflammatory molecules from acting. It is indicated with both food allergies and atopy.

Immunosuppressants

Immunosuppressants decrease the immune system's activity by preventing the production of inflammatory molecules. Immunosuppressants are used mainly in cases of atopy.



Antipruritic medications

The term antipruritic means "against itching". The main effect of this class of drugs is to prevent the pruritic signal from being transmitted in the skin. They also have some anti-inflammatory effects, although not as strong as cortisone's. They are indicated for all types of allergies.

Antibodies

Antibodies have no anti-inflammatory effect. Instead, they attach to the molecule that stimulates skin nerve fibers and neutralize it. They are used to control the symptoms of atopy.

Food

Foods designed to help treat atopic skin are also available. They are enriched with omega 3 and 6 essential fatty acids. Omega-3 reduces inflammation and omega-6 restores the skin barrier. Essential fatty acids also improve skin hydration, reduce the risk of infections, promote healing of lesions and make the coat shinier.



ALLERGIES

Over-the-counter products

A variety of great products are available on our shelves. They are used with dermatological food and with medications to control symptoms.

They include omega-3 nutritional supplements, shampoos, conditioners and topical liquids. These products help heal the skin just like food:

- by cleansing and moisturizing it;
- by repairing and restoring the skin barrier's integrity;
- by helping to fight bacterial and fungal infections;
- by reducing inflammation.



ALLERGIES

The final word

Skin and digestive problems are frequent in dogs. Several reasons, besides allergies, can cause the same symptoms. It can therefore be complicated to identify the cause(s) involved. To solve this puzzle, we must proceed step by step. This includes testing and doing therapeutic trials with drugs and food.

We hope this guide helps you understand the condition your dog is suffering from and how we diagnose and treat it. Although we can't cure his allergies, we can still manage his symptoms. By working together, we can help him feel better in his own skin.



MONVET

Groupe Vétérinaire MONVET Inc.

**Medecine | Hospitalization | Standard or laser surgery
Dentistry | Digital Radiology | Ultrasound | On Site Laboratory
Physiotherapy | Osteopathy | Acupuncture | Nutrition | Boarding**

Certain services are not available for all animal species nor in all our locations.

Working together for animal health and wellbeing.



Montreal
(Anjou)



Boucherville



Beloeil



Ste-Julie



Montreal
(Rivière-des-Prairies)



Montreal
(Pointe-aux-Trembles)



Montreal
(Saint-Michel)



Longueuil



CLINIQUE VÉTÉRAIRE
DE LA RUE PRINCIPALE INC.

Membre du Groupe Vétérinaire MonVet Inc.

Saint-Amable

WWW.MONVET.COM